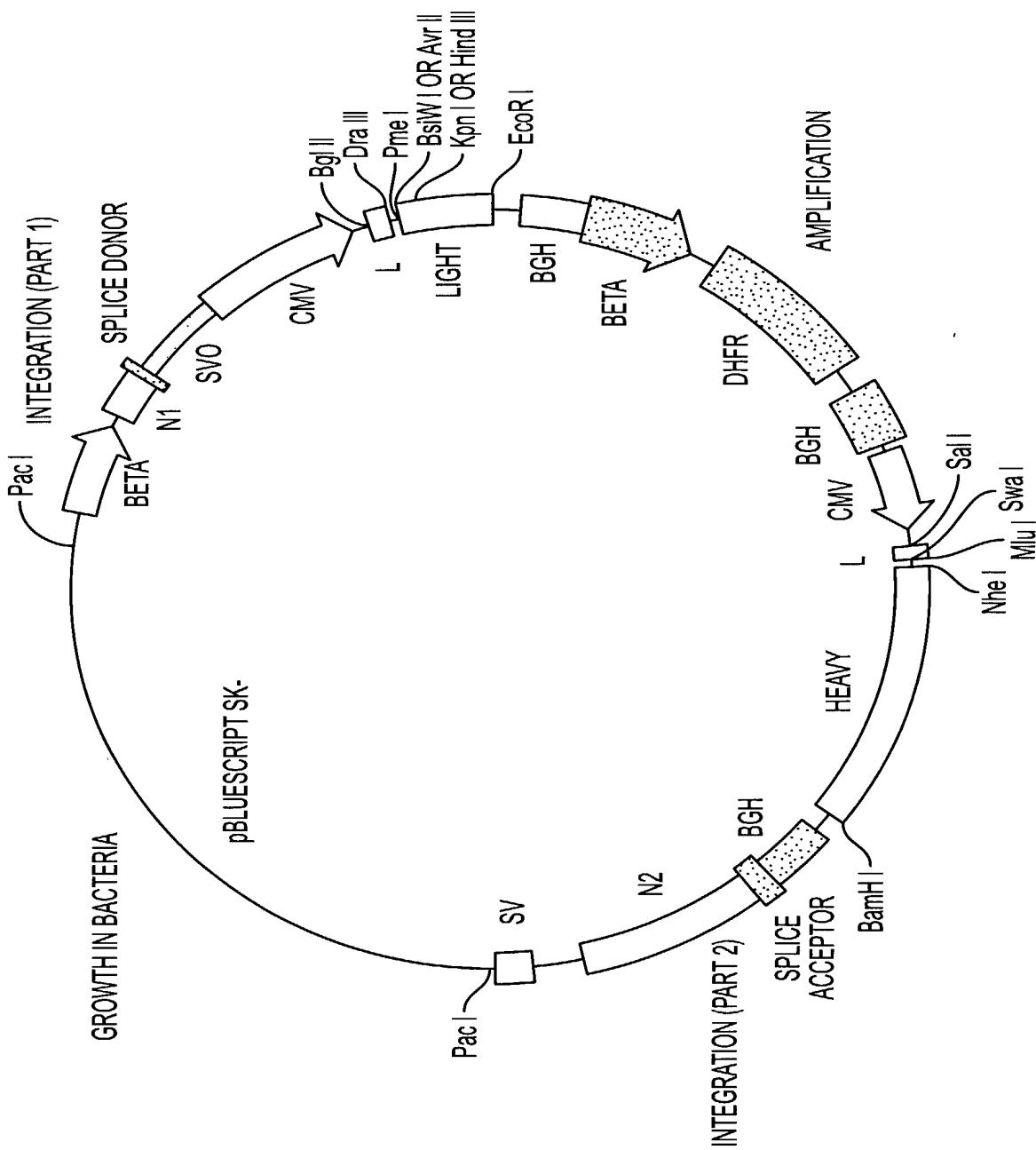


FIG. 1

**FIG. 2**



Frame 1 M R V P A Q L CTC L G GGG L CTC L CTG L CTC W TGG L CTC P CCA G GGT A GCA R CGA  
 ATG AGG GTC CCC GCT CAG 9 18 27 36 45 54  
 C A Y E L T Q P S V S V S P G Q T A G A R I  
 TGT GCC TAT GAA CTG ACT CAG 63 72 81 90 99 108 117  
 ACC C G G D N S R N E Y V H W Y Q K P A R  
 TGT GGG GGA GAC AAC AGT 126 135 144 153 162 171 180  
 A P I L V I Y D D S D R P S G I P E R F S  
 GCC CCT ATA CTG GTC ATC TAT 189 198 207 216 225 234 243  
 G S K S G N T A T L CTC T ACC I N G V E A G  
 GGC TCC AAA TCA GGG AAC ACC 252 261 270 279 288 297 306  
 D Y T C Q V W D R A S D H P V F G G G G T R  
 GAC TAT TAC TGT CAG GTG TGG 315 324 333 342 351 360 369  
 V T V L G Q P K A P S V T L F P P S S E  
 GTG ACC GTC CTA GGT CAG CCC 378 387 396 405 414 423 432  
 E L Q A N K A T L V C L I S D F Y P G G A V  
 GAG CTT CAA GCC AAC AAG 441 450 459 468 477 486 495  
 T V A W K A D S S P V K A G G V E T T P S  
 ACA GTG GCC TGG AAG GCA GAT 504 513 522 531 540 549 558  
 K Q S N K Y A G S S Y L T G C T G A C G P E  
 AAA CAA AGC AAC AAC AAG TAC 567 576 585 594 603 612 621  
 S H R S Y S C Q V T H E G S T V E K A A G T V  
 TCC CAC AGA AGC TAC AGC TGC 630 639 648 657 666 675 684  
 P T E C S  
 CCT ACA GAA TGT TCA TGA 693 702

**FIG. 3A**

Frame	1	M	K	H	L	W	F	F	L	L	L	V	A	A	P	R	W	V	L	S	
		ATG	AAA	CAC	CTG	TGG	TTC	TTC	CTC	CTC	CTG	GTG	GCA	GCT	CCC	AGA	TGG	GTC	CTG	TCC	
	9						18						36			45			54		
Q	V	K	L	O	O	W	G	E	GAA	GGA	L	CTG	Q	P	S	E	T	L	S		
63	CAG	GTG	AAG	CTG	CAG	TGG	GGC	81	GAA	GGA	CTT	CTG	CAG	CCT	TCG	GAG	ACC	CTG	TCC	CGC	
														99			108			117	
C	V	V	S	G	GGT	G	S	I	S	G	Y	Y	Y	W	T	W	I	R	Q	T	
126	TGC	GTT	GTC	TCT	GGT	GGC	TCC	ATC	AGC	GGT	TAC	TAC	TAC	TGG	ACC	TGG	ATC	CGC	CAG	ACC	
											153			162			171			180	
G	R	G	L	E	W	I	G	H	I	Y	G	N	G	A	T	T	N	Y	N	P	
189	GGG	AGG	GGA	CTG	GAG	TGG	ATT	GGC	CAT	ATT	TAT	GGT	AAT	GGT	ACC	ACC	AAC	TAC	AAT	CCC	
											216			225			234			243	
S	L	K	S	R	V	T	I	S	K	D	T	S	K	N	Q	F	F	L	N	L	
252	TCC	CTC	AAG	AGT	CGA	GTC	ACC	ATT	TCA	AAA	GAC	ACG	TCC	AAG	AAC	CAG	TTC	CTG	AAC	TTG	
											279			288			297			306	
N	S	V	T	D	A	D	T	A	V	Y	Y	C	A	R	G	P	R	P	D	C	
315	AAT	TCT	GTG	ACC	GAC	GCG	GAC	ACG	GCC	GTC	TAT	TAC	TGT	GCG	AGA	GGC	CCT	CGC	CCT	GAT	
											342			351			360			369	
T	T	I	C	Y	G	G	W	V	D	V	W	G	P	G	D	L	V	T	V	S	
378	ACA	ACC	ATT	TGT	TAT	GGC	GGC	TGG	GTC	GAT	GTC	TGG	GGC	CCG	GGA	GAC	CTG	GTC	ACC	GTC	
											405			414			423			432	
S	A	S	T	K	G	P	S	TCG	V	F	P	L	A	P	S	T	S	T	G		
441	TCA	GCT	AGC	ACC	AAG	GGC	CCA	TCG	GTC	TTC	CCC	CTG	GCA	CCC	TCC	TCC	AAG	AGC	ACC	GGG	
											468			477			486			495	
G	T	A	A	L	G	C	L	CTG	V	K	D	Y	F	P	E	P	V	T	S	W	
504	GGC	ACA	GCG	GCC	CTG	GGC	TGC	CTG	GTC	AAG	GAC	TAC	TTC	CCC	GAA	CCG	GTG	ACG	GTG	TGG	
											531			540			549			558	
N	S	G	A	L	T	S	G	V	H	T	ACC	F	P	A	V	L	Q	S	G	L	
567	AAC	TCA	GGC	GCC	CTG	ACC	AGC	GGC	GTG	CAC	594	TTC	CCG	GCT	GTC	CTA	CAG	TCC	TCA	GGG	
											594			603			612			621	
Y	S	L	S	S	V	V	T	ACC	V	P	S	S	S	L	G	T	Q	T	I	C	
630	TAC	TCC	CTC	AGC	AGC	GTG	GTG	648	CCC	TCC	AGC	AGC	TTG	GGC	ACC	ACC	AGA	ACC	TAC	TGC	
											657			666			675			684	
N	V	N	H	K	P	S	N	T	K	V	D	K	K	A	E	P	K	S	C	D	
693	AAC	GTG	AAT	CAC	AAG	CCC	AGC	AAC	ACC	AAG	GTG	GAC	AAG	AAA	GCA	GAG	CCC	AAA	TCT	TGT	
											720			729			738			747	
K	T	H	T	C	P	P	C	P	CCA	A	P	E	L	G	G	P	S	V	F	L	
756	AAA	ACT	CAC	ACA	TGC	CCA	CCG	TGC	CCA	GCA	CCT	GAA	CTC	CTG	GGG	GGG	CCG	TCA	GTC	TTC	
												783			792			801			810
F	P	K	P	K	D	T	L	M	I	S	R	T	ACC	P	E	V	T	C	V	V	
819	TTC	CCC	CCA	AAA	CCC	AAG	GAC	ACC	CTC	ATG	ATC	TCC	CGG	ACC	CCT	GAG	GTC	ACA	TGC	GTG	
											837			846			855			873	
V	D	V	S	H	E	D	P	E	GAG	V	K	F	N	W	Y	V	D	G	G	V	
882	GTG	GAC	GTG	AGC	CAC	GAA	GAC	CCT	900	909	AAG	TTC	AAC	TGG	TAC	GTG	GAC	GGC	GTG	EAG	GTG
														918			927			936	

FIG. 3B

H	N	A	K	T	K	P	R	E	E	Q	Y	N	S	T	Y	R	V	V	S	V
CAT	AAT	GCC	AAG	ACA	AAG	CCG	CGG	GAG	GAG	CAG	TAC	AAC	AGC	ACG	TAC	CGT	GTG	GTC	AGC	GTC
945	954					963				972			981			990			999	
L	T	V	L	H	Q	D	W	L	N	G	K	E	Y	K	C	K	V	S	N	K
CTC	ACC	GTC	CTG	CAC	CAG	GAC	TGG	CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	TCC	AAC	AAA
1008		1017				1026			1035			1044			1053			1062		
A	L	P	A	P	I	E	K	T	I	S	K	A	K	G	Q	P	R	E	P	Q
GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	GAA	CCA	CAG
1071		1080			1089				1098			1107			1116			1125		
V	Y	T	L	P	S	R	D	E	L	T	K	N	Q	V	S	L	T	C	L	CTG
GTC	TAC	ACC	CTG	CCC	CCA	TCC	CGG	GAT	GAG	CTG	ACC	AAG	AAC	CAG	GTC	AGC	CTG	ACC	TGC	CTG
1134		1143			1152				1161			1170			1179			1188		
V	K	G	F	Y	P	S	D	I	A	V	E	W	E	S	N	G	Q	P	E	N
GTC	AAA	GGC	TTC	TAT	CCC	AGC	GAC	ATC	GCC	GTG	GAG	TGG	GAG	AGC	AAT	GGG	CAG	CCG	GAG	AAC
1197		1206			1215				1224			1233			1242			1251		
N	Y	K	T	T	P	P	V	L	D	S	D	G	S	F	F	L	Y	S	K	L
AAC	TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC	TCC	GAC	GGC	TCC	TTC	TTC	CTC	TAC	AGC	AAG	CTC
1260		1269			1278				1287			1296			1305			1314		
T	V	D	K	S	R	W	Q	Q	G	N	V	F	S	C	S	V	M	H	E	A
ACC	GTG	GAC	AAG	AGC	AGG	TGG	CAG	CAG	GGG	AAC	GTC	TTC	TCA	TGC	TCC	GTG	ATG	CAT	GAG	GCT
1323		1332			1341				1350			1359			1368			1377		
L	H	N	H	Y	T	Q	K	S	L	S	L	S	P	G	K					
CTG	CAC	AAC	CAC	TAC	ACG	CAG	AAG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA				
1386		1395			1404				1413			1422			1431					

**FIG. 3C**

Frame 1 M S L P A Q L C T G C T C L G G G L C T G L C T A L T T G L C T C C V P G G G S S  
 ATG AGC CTC CCT GCT CAG CTC CTC GGG CTG CTA TTG CTC TGC GTC CCC GGG TCC AGT  
 9 18 27 36 45 54  
 G E V V M T Q S P L S L P I T P G E P A S S  
 GGG GAA GTT GTG ATG ACT CAG TCT CCA CTG TCC CTT CCC ATC ACA CCT GGA GAG P CCG A GCC S TCC  
 63 72 81 90 99 108 117  
 I S C R S Q S L K H S N G D T F L S W Y TAT  
 ATC TCC TGT AGG TCT AGT CAA AGC CTT AAA CAC AGT AAT GGA GAC ACC TTC CTG AGT TGG 180  
 126 135 144 153 162 171  
 Q Q K P G Q P R L I Y K V S N R D S G  
 CAG CAG AAG CCA GGC CAA CCT CCA AGG CTC CTG ATT TAT AAG GTT TCT AAC CGG D GAC TCT GGG  
 189 198 207 216 225 234 243  
 V P D R F S G S G AGT GGG A G G T T C T G K I S A V G C A V  
 GTC CCA GAC AGA TTC AGC GGC S AGT GGG A GCA G GGG T ACA D GAT TTC ACA L CTG AAA ATC AGC A GCA V GTG  
 252 261 270 279 288 297 306  
 E A D V G G V Y F C G G Q G T R T P P T F G  
 GAG GCT GAA GAT GTT GGG GTT TAT TTC C TGC G GGG CAA GGT T ACA AGG ACT CCT CCC T ACT TTC GGC  
 315 324 333 342 351 360 369  
 G G T K V E I K R T A V A P S V F I F P P  
 GGA GGG ACC AAG GTG GAA ATC AAA CGT T ACG GTG GCT A GCA P CCA S TCT GTC TTC ATC TTC CCG CCA  
 378 387 396 405 414 423 432  
 S D E Q L K S G T A C T A G C S T C T V V C L C T G L C T G N A A T N A A C F T T C Y T A T P C C C  
 TCT GAT GAG CAG TTG AAA TCT GGA T ACT GCC 468 477 486 495  
 441 450 459  
 R E A K V Q W K V D N A S G G N S Q C E S  
 AGA GAG GCC AAA GTA CAG TGG AAG GTG D GAT AAC GCC L CTC Q CAA TCG G GGT AAC TCC Q CAG GAG AGT  
 504 513 522 531 540 549 558  
 V T E Q D S K D S T Y S S T L L T C T G L C T G S K  
 GTC ACA GAG CAG GAC AGC AAG GAC D GAT AAC AGC T ACC Y TAC S AGC L CTC S AGC T ACC L CTG T ACG L CTG S AGC K AAA  
 567 576 585 594 603 612 621  
 A D Y E K H K V Y A C T G C E G V T H Q G L S S P  
 GCA GAC TAC GAG AAA CAC AAA GTC TAC GCC C TGC E GAA V GTC T ACC H CAT Q CAG G GGC L CTG S AGC S TCG P CCC  
 630 639 648 657 666 675 684  
 V T K S F N R G E C  
 GTC ACA AAG AGC TTC AAC AGG GGA GAG TGT TGA  
 693 702 711 720

**FIG. 4A**

Frame	1	M	G	W	S	L	I	L	F	L	V	A	V	R	V	O	C
		ATG	GGT	TGG	AGC	CTC	ATC	TTG	CTC	TTC	GTC	GCT	GTT	ACG	GTC	CAG	TGT
		9			18				27			36		45		54	
E	V	Q	L	V	E	S	G	G	G	V	Q	P	G	G	S	V	S
GAG	GTG	CAA	CTG	GTG	GAG	TCT	GGG	GGA	GGC	TTG	GTC	CCT	GGC	GGG	TCC	CTG	GTC
63		72			81				90			99			108		117
C	A	V	S	G	F	T	ACC	F	S	D	H	Y	M	W	F	R	G
TGT	GCA	GTC	TCT	GGA	TTC	ACC	TTC	AGT	GAC	CAC	TAC	ATG	TAT	TGG	TTC	CGC	GGG
126		135			144				153			162			171		180
K	G	P	E	W	V	G	GGT	F	I	R	N	K	P	G	G	T	A
AAG	GGG	CCG	GAA	TGG	GTA	GGT	TTC	ATT	AGA	AAC	AAA	CCG	NAA	GGT	GGG	ACA	ACA
189		198			207				216			225			234		243
A	S	V	K	D	R	F	T	I	S	R	D	D	S	K	S	Y	A
GCG	TCT	GTG	AAA	GAC	AGA	TTC	ACC	ATC	TCC	AGA	GAT	GAT	TCC	AAA	AGC	ATC	GCC
252		261			270				279			288			297		306
M	S	S	L	K	I	E	D	T	A	V	Y	Y	C	T	T	S	H
ATG	AGC	AGC	CTG	AAA	ATC	GAG	GAC	ACG	GCC	GTC	TAT	TAC	TGT	ACT	ACA	TCC	TCA
315		324			333				342			351			360		369
C	R	G	G	V	C	Y	G	G	Y	F	E	F	W	G	Q	G	V
TGT	CGG	GGT	GGT	GTC	TGC	TAT	GGG	GGT	TAC	TTC	GAA	TTC	TGG	GGC	CAG	GCC	TGT
378		387			396				405			414			423		432
V	S	S	A	S	T	K	G	P	S	V	F	P	L	A	P	S	T
GTC	TCC	TCA	GCT	AGC	ACC	AAG	GCG	CCA	TCG	GTC	TTC	CCC	CTG	GCA	CCC	TCC	KAG
441		450			459				468			477			486		495
S	G	G	T	A	A	L	G	C	L	V	K	D	Y	F	P	V	V
TCT	GGG	GGC	ACA	GCG	GCC	CTG	GGC	TGC	CTG	GTC	AAG	GAC	TAC	TTC	CCC	GAA	ACG
504		513			522				531			540			549		558
S	W	N	S	G	A	L	T	S	G	V	H	T	F	P	V	T	V
TCG	TGG	AAC	TCA	GGC	GCC	CTG	ACC	AGC	GGC	GTG	CAC	ACC	TTC	CCG	GCT	GTC	TCA
567		576			585				594			603			612		621
G	L	Y	S	L	S	V	V	V	T	GTG	P	S	S	L	T	Q	Y
GGA	CTC	TAC	TCC	CTC	AGC	AGC	GTG	GTG	ACC	GTG	CCC	TCC	AGC	TTG	GGC	ACC	TAC
630		639			648				657			666			675		684
I	C	N	V	N	H	K	P	S	N	T	K	V	D	K	K	P	S
ATC	TGC	AAC	GTG	AAT	CAC	AAG	CCC	AGC	AAC	ACC	AAG	GTG	GAC	AAG	GCA	CCC	TCT
693		702			711				720			729			738		747
C	D	K	T	H	T	C	P	P	C	P	A	P	E	G	P	V	
TGT	GAC	AAA	ACT	CAC	ACA	TGC	CCA	CCG	TGC	CCA	GCA	CCT	GAA	L	GGG	GGG	GTC
756		765			774				783			792			801		810
F	L	F	P	P	K	P	K	D	T	L	M	I	S	R	E	V	C
TTC	CTC	TTC	CCC	CCA	AAA	CCC	AAG	GAC	ACC	CTC	ATG	ATC	TCC	CGG	GAG	GTC	TGC
819		828			837				846			855			864		873
V	V	V	D	V	S	H	E	D	GAC	P	E	F	N	W	Y	V	C
GTG	GTG	GTG	GAC	GTG	AGC	CAC	GAA	GAC	CCT	GAG	GTC	KAA	TTC	AAC	TGG	DAC	GGC
882		891			900				909			918			927		936

FIG. 4B

E	V	H	N	A	K	T	K	P	R	E	E	Q	Y	N	S	T	Y	R	V	V	
GAG	GTG	CAT	AAT	GCC	AAG	ACA	KAAAG	CCG	CGG	GAG	GAG	CAG	TAC	AAC	AGC	ACG	TAC	CGT	GTG	GTC	
945		954					963			972		981				990				999	
S	V	L	T	V	L	H	Q	D	W	L	N	G	K	E	GAG	Y	K	C	K	V	S
AGC	GTC	CTC	ACC	GTC	CTG	CAC	CAG	GAC	TGG	CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	1062	TCC
1008		1017			1026				1035		1044				1053						
N	K	A	L	P	A	P	I	E	K	T	I	S	K	A	GCC	K	G	P	R	E	
AAC	AAA	GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	1125	GAA
1071		1080			1089				1098		1107				1116						
P	Q	V	Y	T	L	P	P	S	R	D	E	L	T	K	AAG	N	Q	V	S	L	T
CCA	CAG	GTG	TAC	ACC	CTG	CCC	CCA	TCC	CGG	GAT	GAG	CTG	T	ACC	AAC	AAC	CAG	GTC	AGC	CTG	ACC
1134		1143			1152				1161			1170			1179						1188
C	L	V	K	G	F	Y	P	S	D	I	A	V	W	E	S	N	G	Q	P	CCG	
TGC	CTG	GTC	AAA	GGC	TTC	TAT	CCC	AGC	GAC	ATC	GCC	GTG	GAG	TGG	GAG	AGC	AAT	GGG	CAG	1251	
1197		1206			1215				1224			1233			1242						
E	N	N	Y	K	T	T	P	P	V	L	D	S	D	G	S	F	F	L	Y	S	
GAG	AAC	AAC	TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC	TCC	GAC	GGC	TCC	TTC	TTC	CTC	TAC	AGC	
1260		1269			1278				1287		1296				1305						1314
K	L	T	V	D	K	S	R	W	Q	Q	G	N	V	F	S	C	S	V	M	H	
AAG	CTC	ACC	GTG	GAC	AAG	AGC	AGG	TGG	CAG	CAG	GGG	AAC	GTC	TTC	TCA	TGC	TCC	GTG	ATG	CAT	
1323		1332			1341				1350			1359			1368						1377
E	A	L	H	N	H	Y	T	Q	K	S	L	S	L	S	P	G	K				
GAG	GCT	CTG	CAC	AAC	CAC	TAC	ACG	CAG	AAG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA			
1386		1395			1404			1413			1422			1431							

**FIG. 4C**

Frame 1 M R V P A Q L C G G L C T G L C T G L C T G L C T G L C T G W L C T C P C C A G G T A G C A R C G A  
 ATG AGG GTC CCC GCT Q CAG L CTC L CTG G GGG L CTC L CTG L CTC L CTG W TGG L CTC P CCA G GGT A GCA R CGA  
 9 18 27 36 45 54

C E S V L T Q P S V P G A Q K V T G C C A G G G T C A G V G T C T G G G G A G C C A G G G Q C A G K A A G V G T C T A C C I A T C  
 TGT GAG TCT GTC CTG ACA Q CAG P CCG P CCC S TCA V GTG S TCT G GGG A GCC P CCA G GGG Q CAG K AAG V GTC T ACC I ATC  
 63 72 81 90 99 108 117

S C T G S T S N I G G G T C A G G A C T G G G G A C C T C C N A A C I A T T G G G A G G T Y T A T D G A T L C T A H C A T W T G G Y T A C Q C A G L C T C P C C A  
 TCG TGC ACT GGG AGC ACC TCC AAC ATT GGA GGT TAT GAT 126 135 144 153 162 171 180

G T A P K L I Y D I N K R P S G G A A C G G C C C A A A C T C L C T C I A T C Y T A T D G A C I A T T N A A C K A A G R C G A P C C C S T C A G G A I A T T S T C T D G A C R C G A  
 GGA ACG GCC CCC AAA CTC L CTC 189 198 207 216 225 234 243

F S G S K S G T A C G G C T C C A A G T C T G G G T A C C A G C G A G C C S T C C L C T G A G C C I A T C T A C T G G G L C T C Q C A G T A C T E G A G D G A T  
 TTC TCT GGC TCC AAG TCT GGT ACC 252 261 270 279 288 297 306

E A D Y Y C Q S Y D S S L N A Q V F G G A G G G  
 GAG GCT GAT TAT TAC TGC CAG TCC ATT GAC AGC AGC CTG AAT GCT CAG GTA TTC GGA GGA GGG  
 315 324 333 342 351 360 369

T R L T V L G Q P K A A G P C C C K A A G A G C T C C S T C G V G T C T A C T L C T G F T T C P C C G P C C C S T C C  
 ACC CGG CTG ACC GTC CTA GGT CAG 378 387 396 405 414 423 432

S E E L Q A N K A T L V C I S D F Y T A C C G G A G G G  
 TCT GAG GAG CTT CAA GCC AAC AAG GCC TCA ACA 441 450 459 468 477 486 495

A V T V A W K A D S S P V K A G G V E T A C C T A C A  
 GCC GTG ACA GTG GCC TGG AAG GCA GAT AGC AGC CCC GTC AAG GCG GGA GTG GAG ACC 504 513 522 531 540 549 558

P S K Q S N N K Y A S S P V K A G G V E T A C C T A C A  
 CCC TCC AAA CAA AGC AAC AAC AAG TAC GCG AGC AGC CCC GTC AAG GCG GGA GTG GAG ACC 567 576 585 594 603 612 621

W K S H R S Y S C Q V T A C G H C A T E G A A G G G S T V E K A A G T A C A  
 TGG AAG TCC CAC AGA AGC TAC AGC TGC CAG GTC ACG CAT 630 639 648 657 666 675 684

V A P T E C S .  
 GTG GCC CCT ACA GAA TGT TCA TGA 693 702 711

**FIG. 5A**

Frame	1	M	K	H	L	W	F	F	L	L	L	V	A	A	P	R	W	V	L	S
		ATG	AAA	CAC	CTG	TGG	TTC	TTC	CTC	CTC	CTG	GTG	GCA	GCT	CCC	AGA	TGG	GTC	CTG	TCC
	9						18			27			36		45					54
Q	V	Q	L	Q	E	S	G	P	G	L	V	K	P	S	E	T	L	S	L	T
CAG	GTG	CAG	CTG	CAG	GAG	TCG	GGC	CCA	GGA	CTG	GTG	AAG	CCT	TCG	GAG	ACC	CTG	TCC	CTC	ACC
63				72			81			90			99		108					117
C	A	V	S	G	GGT	G	S	TCC	I	S	G	GGT	Y	W	G	W	I	R	Q	P
TGC	GCT	GTC	TCT	GGT	GGC	G	TCC	ATC	AGC	GGT	TAT	G	TGG	GGC	TGG	ATC	CGC	CCC	CCA	
126				135				144		153		162		171					180	
G	K	G	L	E	W	I	G	S	AGT	F	Y	S	AGT	S	G	N	T	Y	Y	P
GGG	AAG	GGG	CTG	GAG	TGG	ATT	GGG	AGT	TTC	Y	TAT	AGT	AGT	GGG	AAC	ACC	TAC	TAC	NAA	CCC
189				198			207			216		225								243
S	L	K	S	Q	V	T	I	S	TCA	T	D	T	S	K	N	Q	F	S	L	K
TCC	CTC	AAG	AGT	CAA	GTC	ACC	ATT	TCA	ACA	GAC	ACG	S	TCC	AAG	AAC	CAG	TTC	TCC	CTG	AAG
252				261			270			279		288		297						306
N	S	M	T	A	A	D	T	A	GCC	V	Y	C	V	R	D	R	L	F	S	V
AAC	TCT	ATG	ACC	GCC	GCG	GAC	ACG	AGC	GCC	GTG	TAT	TAC	TGT	AGA	GAT	CGT	CTT	TTT	TCA	GTT
315				324			333			342		351					360			369
V	G	M	V	Y	N	N	W	F	D	V	W	G	P	G	V	L	V	T	V	S
GTT	GGA	ATG	GTT	TAC	AAC	NAA	TGG	TTC	GAT	GTC	TGG	GGC	CCG	GGA	GTC	CTG	ACC	GTC	TCC	432
378				387			396			405		414					423			
S	A	S	T	K	G	P	S	V	F	P	L	A	P	S	S	K	S	T	S	GGG
TCA	GCT	AGC	ACC	AAG	GGC	CCA	TCG	GTC	TTC	CCC	CTG	GCA	CCC	TCC	TCC	AAG	AGC	ACC	TCT	495
441				450			459			468		477					486			
G	T	A	A	L	G	C	L	V	K	D	Y	F	P	E	P	V	T	V	S	W
GGC	ACA	GCG	GCC	CTG	GGC	TGC	CTG	GTC	AAG	GAC	TAC	TTC	CCC	GAA	CCG	GTG	ACG	GTG	TCG	TGG
504				513			522			531		540					549			558
N	S	G	A	L	T	S	G	V	H	CAC	T	F	P	A	V	L	Q	S	G	L
AAC	TCA	GGC	GCC	CTG	ACC	AGC	GGC	GTG	CAC	ACC	TTC	CCG	GCT	GTC	CTA	CAG	TCC	TCA	GGG	CTC
567				576			585			594		603					612			621
Y	S	L	S	S	V	V	T	V	P	S	S	L	G	T	Q	T	Y	I	C	
TAC	TCC	CTC	AGC	AGC	GTG	GTG	ACC	GTG	CCC	TCC	AGC	AGC	TTG	GGC	ACC	CAG	ACC	TAC	ATC	TGC
630				639			648			657		666					675			684
N	V	N	H	K	P	S	N	T	K	V	D	K	K	A	E	P	K	S	D	
AAC	GTG	AAT	CAC	AAG	CCC	AGC	AAC	ACC	AAG	GTG	GAC	AAG	AAA	GCA	GAG	CCC	AAA	TCT	TGT	GAC
693				702			711			720		729					738			747
K	T	H	T	C	P	P	C	P	A	P	E	L	L	G	G	P	S	V	F	
AAA	ACT	CAC	ACA	TGC	CCA	CCG	TGC	CCA	GCA	CCT	GAA	CTC	CTG	GGG	GGA	CCG	TCA	GTC	TTC	CTC
756				765			774			783		792					801			810
F	P	P	K	P	K	D	T	L	M	I	S	R	T	P	E	V	T	C	V	
TTC	CCC	CCA	AAA	CCC	AAG	GAC	ACC	CTC	ATG	ATC	TCC	CGG	ACC	CCT	EAG	GTC	ACA	TGC	GTG	GTG
819				828			837			846		855					864			873
V	D	V	S	H	E	D	P	E	V	K	F	N	W	Y	V	D	G	V	E	V
GTG	GAC	GTG	AGC	CAC	GAA	GAC	CCT	GAG	GTC	AAG	TTC	AAC	TGG	TAC	GTG	GAC	GGC	GTG	GAG	GTG
882				891			900			909		918					927			936

FIG. 5B

H	N	A	K	T	K	P	R	E	E	Q	Y	N	S	T	Y	R	V	V	S	V
CAT	AAT	GCC	AAG	ACA	AAG	CCG	CGG	GAG	GAG	CAG	TAC	AAC	AGC	ACG	TAC	CGT	GTG	GTC	AGC	GTC
945	954					963				972			981			990			999	
L	T	V	L	H	Q	D	W	L	N	G	K	E	Y	K	C	K	V	S	N	K
CTC	ACC	GTC	CTG	CAC	CAG	GAC	TGG	CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	TCC	AAC	AAA
1008		1017			1026			1035			1044			1053				1062		
A	L	P	A	P	I	E	K	T	I	S	K	A	K	G	Q	P	R	E	P	Q
GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	GAA	CCA	CAG
1071		1080			1089			1098			1107			1116			1125			
V	Y	T	L	P	S	R	D	E	L	T	K	N	Q	V	S	L	T	C	L	CTG
GTC	TAC	ACC	CTG	CCC	CCA	TCC	CGG	GAT	GAG	CTG	ACC	AAG	AAC	CAG	GTC	AGC	CTG	ACC	TGC	CTG
1134		1143			1152			1161			1170			1179			1188			
V	K	G	F	Y	P	S	D	I	A	V	E	W	E	S	N	G	Q	P	E	N
GTC	AAA	GGC	TTC	TAT	CCC	AGC	GAC	ATC	GCC	GTC	GAG	TGG	GAG	AGC	AAT	GGG	CAG	CCG	GAG	AAC
1197		1206			1215			1224			1233			1242			1251			
N	Y	K	T	T	P	P	V	L	D	S	D	G	S	F	F	L	Y	S	K	L
AAC	TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC	TCC	GAC	GGC	TCC	TTC	TTC	CTC	TAC	AGC	AAG	CTC
1260		1269			1278			1287			1296			1305			1314			
T	V	D	K	S	R	W	Q	Q	G	N	V	F	S	C	S	V	M	H	E	A
ACC	GTG	GAC	AAG	AGC	AGG	TGG	CAG	CAG	GGG	AAC	GTC	TTC	TCA	TGC	TCC	GTG	ATG	CAT	GAG	GCT
1323		1332			1341			1350			1359			1368			1377			
L	H	N	H	Y	T	Q	K	S	L	S	L	S	P	G	K	.				
CTG	CAC	AAC	CAC	TAC	ACG	CAG	AGG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA				
1386		1395			1404			1413			1422			1431						

**FIG. 5C**

100%  
80%  
60%  
40%  
20%  
0%

P16C10 CTLA4 Ig B7-1 Ig

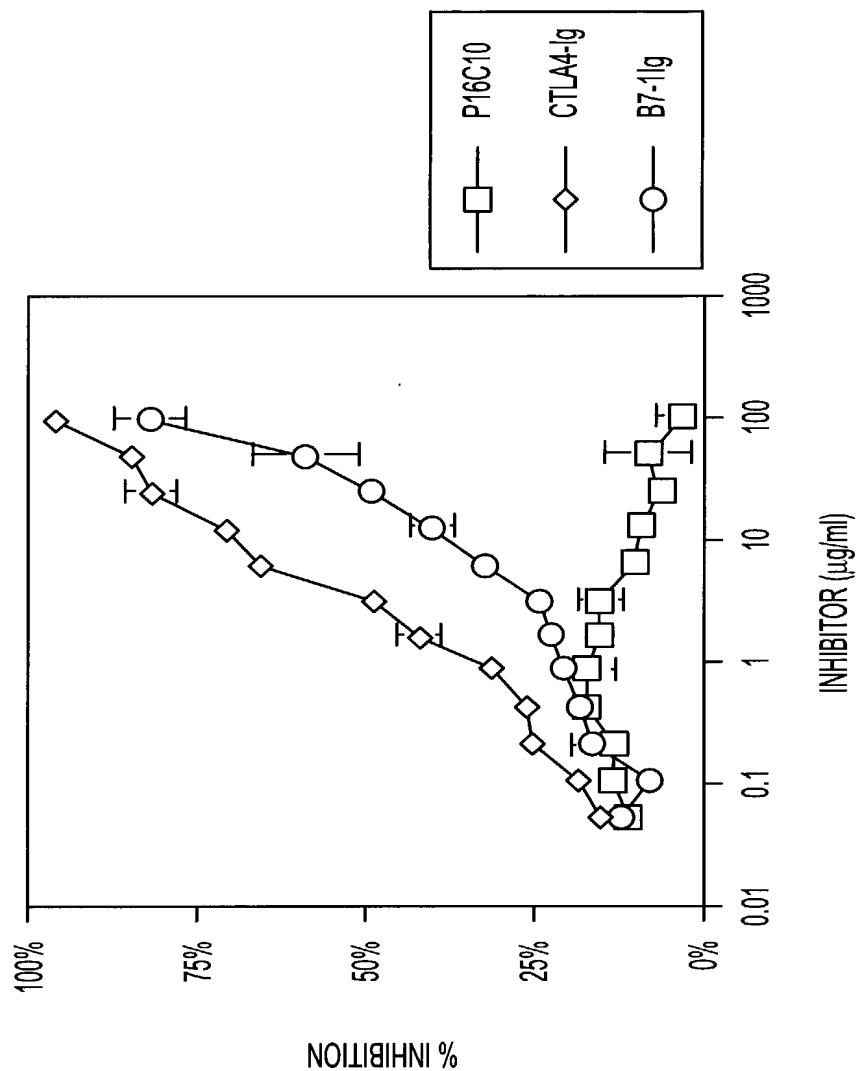


FIG. 6

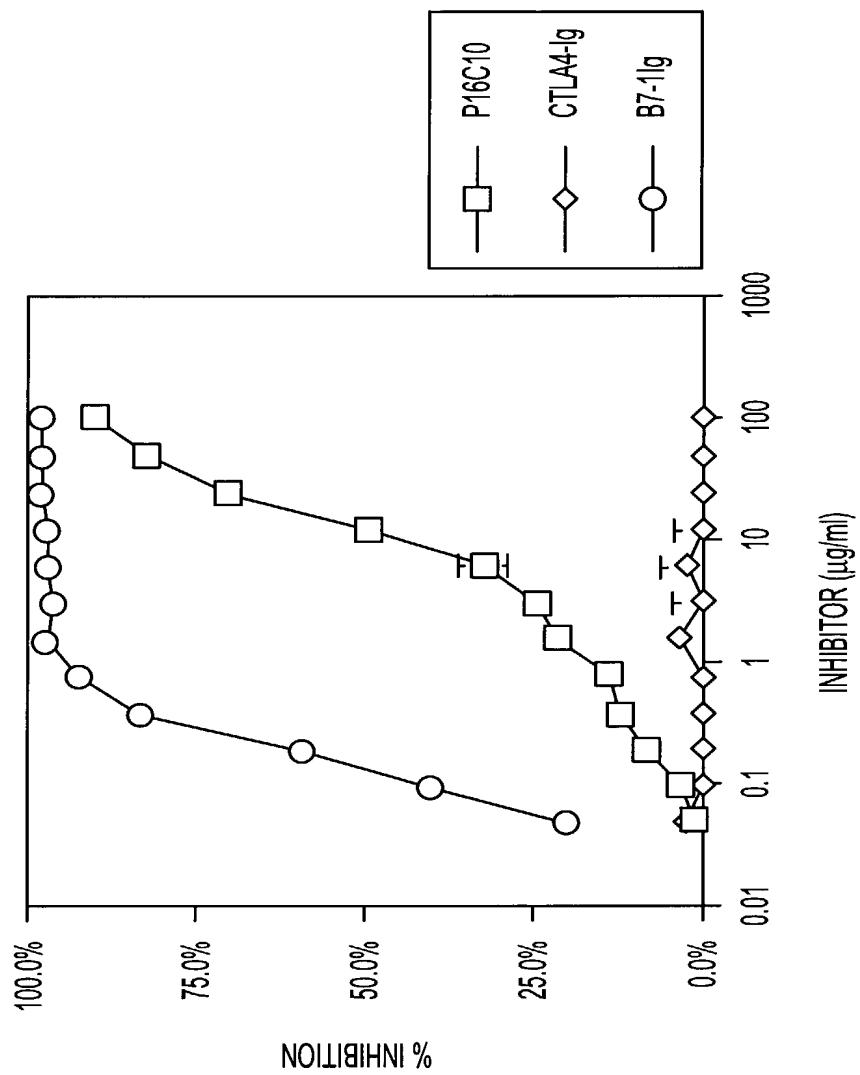
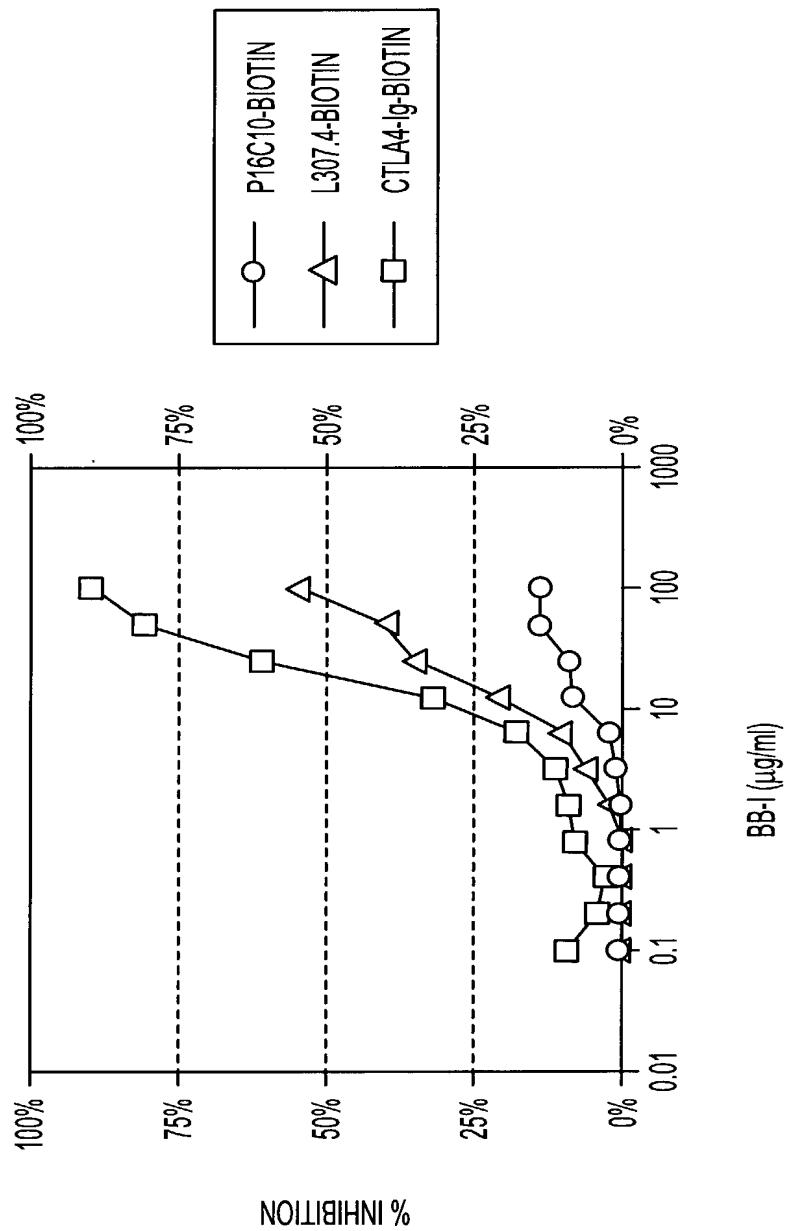


FIG. 7

FIG. 8



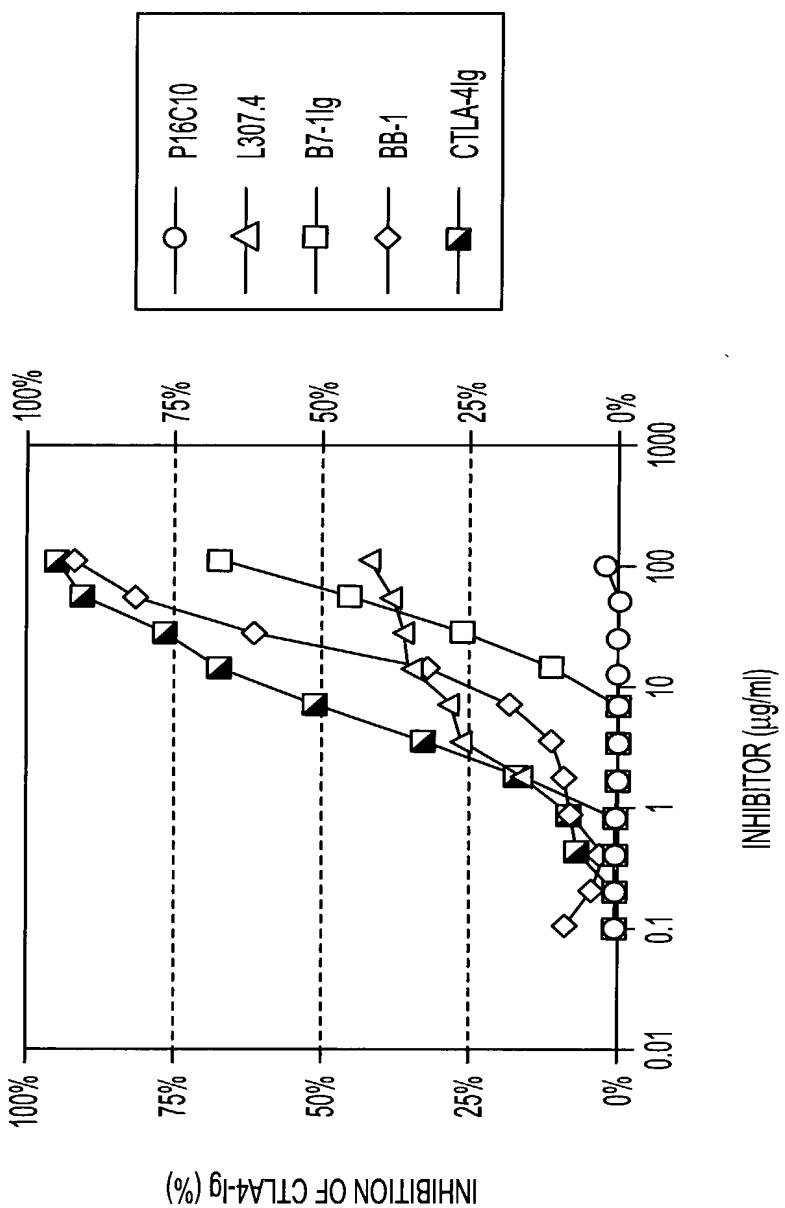


FIG. 9

FIG. 10

